145. In addition to the above, the Public Works Department had undertaken the construction of six hirda depôts in the Akola Táluka of the Ahmednagar Division. Two depôts, *viz.*, at Shinganvádi and Ghátghar, were completed before the close of the year, while the remaining four were still under construction. Office accommodations for Range Forest officers was likewise built by the Public Works Department, at the instance of the Conservator, within the premises of kacheries of Bhusával, Bhadgaon and Navápur in the Khándesh District. Seed-rooms in the offices at Karjat and Shrigonda in the Ahmednagar District were paved. An office and store-room was built for the Range Forest Officer of Málsiras in the Sholápur District; and a seed-room for the Range Forest Officer, Hálol, in the Panch Maháls Division.

146. The expenditure incurred by the Divisional Forest officers in the Northern Circle, in building Forest Guards' huts, tempoary depôt-houses, and upon ordinary repairs to existing rest-houses and forest posts, is given in the following statement:—

No.	Division.	Amount.		
		Rs.	a.	p.
1	North Thána	515	1	0
2	South Thána	352	13	6
3	East Khándesh	128	3	0
4	West Khándesh	943	0	8
5	Násik...	333	1	0
6	Poona...	120	0	9
7	Sátára	41	4	6
8	Surat	457	15	2
9	Panch Maháls	36	0	9
	Total ...	2,927	8	4

CHAPTER IV.

OUTTURN AND WORKING.

I.—DEPARTMENTAL OPERATIONS.

(1) Timber.

147. The following statement shows an approximate estimate of the outturn, in cubic feet of the timber exploited from the forests by Government Agency, with the cost incurred and the revenue realised by its sale, during the year 1889-90, as compared with the outturn, cost and receipts of the preceding year:—

No.	Division.	1888-89.					1889-90.				
		Timber in the rough; Logs.	Timber in the rough; Poles.	Miscellaneous.	Cost.	Receipts.	Timber in the rough; Logs.	Timber in the rough; Poles.	Miscellaneous.	Cost.	Receipts.
		C. ft.	C. ft.	C. ft.	Rs.	Rs.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
1	North Thána	...	82,938	...	4,402	14,771	...	10,206	...	457	2,449
2	South Thána	...	18,100	7,398	2,344	7,665	...	41,868	...	6,558	5,522
3	East Khándesh	2,500	11,250	...	904	7,722	77	19,700	...	1,078	9,585
4	West Khándesh	18,375	21,921	...	3,251	20,240	...	50,489	1,983	2,844	33,366
5	Násik	578,077	...	...	1,665	29,356	78,988	...	...	472	4,140
6	Ahmednagar	...	296,221	...	1,437	7,336	...	1,14,882	308	1,442	6,967
7	Poona	59,946	41,971	...	2,934	27,699	97,547	34,738	...	3,191	25,596
8	Sátára	...	38,531	...	1,797	16,491	...	33,452	...	1,892	14,912
9	Sholápur	1,352	...	...	15	173	1,979	10	...	21	271
10	Surat	65,233	108,577	2,088	3,552	41,889	81,066	2,20,146	849	11,535	31,522
11	Panch Maháls	20,249	...	3,940	426	1,039	5,348	504	1,949	263	441
	Total ...	745,732	619,509	13,426	22,727	1,74,381	265,005	525,995	5,089	29,753	1,34,771

148. The great decrease appearing in the North Thána Division is due to the abolition of departmental operations in favour of sales of standing timber to contractors and purchasers to fell and remove. It was not found to be necessary to open departmental retail shops for the sale of timber, &c., to villagers, as recommended by the Forest Commission, for not only do the people resort to the coupes for their requirements in timber and firewood, as freely as to a fixed bazaar, but contractors also send cart-loads of timber in various intermediate directions on speculative sale, and thus the local wants are fully and more readily supplied.

149. In the South Thána Division, departmental operations were restricted to the coupes which had remained unsold at the auctions of the season, with the view of serving the interests of the agricultural classes in the division; the timber was exploited departmentally, but the people did not show appreciation of this conciliatory proceeding, and no sale at all could be effected in no less than 9 out of 16 coupes, and consequently the receipts are less than the expenditure; the value of the material remaining on hand being Rs. 8,200. The reason is not far to seek: in dealing direct with Government the villagers have to pay cash, whereas in buying from contractors and dealers they deal on credit and also by barter or exchange, and their wants can be supplied in better detail.

150. In the two Khándesh Divisions the year has been, on the whole, a good one for sales of timber cut departmentally, owing to the import of foreign timber having been abnormally small before the departmental sales. In the Násik Division, the decrease in outturn is due to a reduced volume of fellings of teak in Málki numbers. In the divisions of Ahmednagar, Poona and Sátára the departmental operations were undertaken as usual, but the demand was not very brisk. In the Surat Division much of the material remained on hand at the close of the year, and hence the decrease in receipts. In the Panch Maháls Division, almost all the material cut departmentally was handed over to the sufferers by the Godhra fire, as per Government Resolution No. 2952, dated 17th April 1889, and hence very little remained for the market.

(2).—Firewood.

151. The departmental operations of firewood, which include the loppings of teak and other kinds undertaken during the year in the several divisions of the Northern Circle, as compared with the results of last year, are exhibited in the statement below, with the outturn in cubic feet, the expenditure incurred, and the revenue derived:—

No.	Division.	1888-89.			1889-90.		
		Firewood. Cubic feet.	Cost.	Receipts.	Firewood. Cubic feet.	Cost.	Receipts.
			Rs.	Rs.		Rs.	Rs.
1	North Thána	101,325	1,390	9,183	3,225	29	402
2	South Thána	52,967	845	2,546	51,375	95	1,762
3	East Khándesh ...	428,625	2,739	10,101	443,340	2,713	12,249
4	West Khándesh ...	134,937	1,729	2,600	245,171	1,223	7,246
5	Násik	196,703	1,073	2,918	183,060	976	3,871
6	Ahmednagar	74,340	204	1,294	168,150	281	1,216
7	Poona	233,162	2,430	10,940	268,272	2,576	11,094
8	Sátára	174,405	1,900	4,001	123,275	1,401	2,265
9	Sholápur	16,718	144	1,134	24,184	166	1,767
10	Surat	57,341	...	302	3,111	...	166
11	Panch Maháls... ...	34,890	659	739	49,711	187	2,892
	Total ...	1,505,413	13,113	45,758	1,562,874	9,647	44,930

152. The decrease in the two Thána Divisions is due to the same causes as have been given under timber operations. In the East Khándesh Division the operations were very encouraging, as there was a great demand for firewood

owing to the increase in the number of ginning factories in that part of the country. In the West Khándesh Division all the fuel remaining on hand from last year, 23,045 cubic feet, was sold during the year, in addition to the sales of the season's outturn; hence the increase in the revenue realised. The increase in Násik was caused by the sale of the balance of firewood from the preceding year. The fuel operations in the Ahmednagar and Poona Divisions were carried on, on the same lines as heretofore, and the demand was fair. In the Sátára Division 44,410 cubic feet remained unsold at the close of the year, and hence the decrease in receipts. No regular expenditure was incurred in the Surat Division on fuel operations, but the loppings of timber trees felled departmentally were sold as firewood. In the Panch Mahás Division 1,51,296 cubic feet from last year were sold during the year.

(3).—Bámbus.

153. No departmental cutting of bámbus was undertaken during the year in any divisions of the Northern Circle, except Sátára. 600 bámbus were thinned out in the forests round Lingmalá, but being mostly crooked and badly grown, did not sell well.

(4).—Other Minor Produce.

154. The only important departmental operation undertaken under this sub-head was the collection of hirda in the divisions of the Northern Circle, where the hirda tree abounds, and the following statement will show the results of the year as compared with those of the past year:—

No.	Division.	Yield.		Cost.		Receipts.	
		1888-89.	1889-90.	1888-89.	1889-90.	1888-89.	1889-90.
		K. m. s.	K. m. s.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	North Thána ...	108 26 13	68 23 4	679 14 10	495 14 6	1,727 6 6	1,342 3 6
2	South Thána ...	265 3 0	83 23 5	1,823 4 0	610 2 8	4,406 15 10	1,656 9 0
3	Násik	51 3 9	47 12 7	56 5 8	30 12 5	.....	.....
4	Ahmednagar ...	340 4 12	132 17 10	2,258 9 3	787 6 0	3,743 2 10	4,926 0 5
5	Poona	271 25 3	138 18 8	1,348 8 3	524 4 6	3,537 14 10	3,197 7 8
6	Sátára	856 23 10	409 9 4	5,745 2 9	2,820 9 3	13,477 10 1	10,140 8 7
	Total ...	1,894 3 5	880 20 10	11,911 12 9	5,269 1 4	26,893 2 1	21,262 13 2

155. It will be seen that the outturn of hirdas has decreased very considerably, owing to the failure of the crop generally, during the year. However the poor crop was somewhat compensated for by better prices at auction sales. In the two Thána Divisions the crop of 1888-89 was exceptionally good, and therefore the results were infinitely superior to those of the year under report, in which the yield was far below the average. The rate per khandi at auction sales was Rs. 19 against Rs. 16 in the preceding year. In the Násik Division hirda was collected on the share system, as in the year before, and therefore the expenditure charged represents only the cost of watching the collected hirda, the sale-proceeds appearing under the sub-head *IIe*. The hirda remaining on hand at the close of the last year was sold at Rs. 31 per khandi. In the Ahmednagar Division the rate per khándi at which the hirda was sold was Rs. 26 against Rs. 11 in the preceding year. The sale-proceeds include Rs. 1,743 for the hirda collected and sold last year, but the proceeds of which were not credited during that year. The expenditure shown against the Poona Division was incurred in the Mulshi Range only, while the hirda in other ranges was sold by auction on the share system. In the Sátára Division there was great falling off in the collection of hirdas owing to a very bad crop, but the price realised, Rs. 60 per deshi khandi, *i. e.*, Rs. 24 per Bombay khandi of 784 lbs., was the highest ever realised in that division, and hence with a diminished yield the receipts compare favourably with those of the past year when an overabundant crop was harvested.

156. Shikákái (the pod of *Acacia concinna*) also gave like hirdas a deficient crop, and therefore the revenue is comparatively small.

157. In the Sholápur Division the bábul bark of the trees felled departmentally sold by auction for Rs. 37.

II.—REMOVAL OF PRODUCE BY PURCHASERS.

(1).—Timber.

158. The statement given below shows the outturn, in cubic feet, of timber removed from the forests of the several divisions of the Northern Circle by purchasers and consumers, at their own expense, and the amount realised, as compared with the results of the previous year:—

No.	Division.	1888-89.				1889-90.			
		Timber in the rough; Logs.	Timber in the rough; Poles.	Miscellaneous.	Amount realised.	Timber in the rough; Logs.	Timber in the rough; Poles.	Miscellaneous.	Amount realised.
					Rs.				Rs.
1	North Thána ...	...	844,464	...	1,53,392	...	872,187	...	2,17,319
2	South Thána ...	...	178,053	...	1,67,316	...	1,379,235	...	1,67,518
3	East Khándesh	...	...	155,305	3,771	...	...	199,280	4,784
4	West Khándesh	...	...	718,366	14,395	...	...	509,584	11,040
5	Násik	58,654	...	...	9,193	244,204	...	...	13,439
6	Ahmednagar ...	...	...	9,628	217	...	...	6,740	189
7	Poona	...	380	...	130	...	39,902	...	797
8	Sátára	7,196	309	3,067	4,052	7,479	1,204	...	2,679
9	Sholápur ...	...	...	324	290	...	...	154	60
10	Surat	41,323	...	40,322	35,745	33,892	...	27,519	24,343
11	Panch Mahals...	160,686	...	...	33,927	248,906	50,754	90,094	47,848
	Total...	267,859	10,23,206	927,012	422,428	534,481	2,343,282	833,371	4,90,016

159. The system of selling timber standing in the compartments, laid out on the ground by the Working Plans Division, in the two Thána Divisions is found to work admirably, almost all the compartments offered for sale fetched excellent prices. The plan of small coupes in considerable numbers spread over the whole forest region, commends itself also from a trade point of view, for dealers of small means, village Pátels and Sávkárs, who are not possessors of great wealth, can afford to speculate to the extent of Rs. 3,000 to 5,000, and they purchase one or two coupes, and thus the better-to-do classes of the local population are becoming interested in forest conservancy and working, are competing for the power of providing for local supply; and with a multiplicity of purchasers combination against the departmental sales is less possible, while on the other hand, the villagers advantage by having more wood shops to go to for their wants, for they fare thereby much better than they would if they were at the mercy of a few big timber merchants. In the South Thána Division sales of coupes to meet the requirements of the Tánsa Dam and Duct Line contractors, Messrs. Glover and Company and Messrs. Walsh, Lovett, Mitchell and Company, were effected, and these firms worked smoothly and in perfect harmony with the Forest Department throughout the year. The realizations of auction sales of coupes to them were Rs. 8,697 and Rs. 23,562 respectively. In all other divisions of the Northern Circle, the coupe system will be introduced gradually, *pari passu*, with working plans of the forests. The augmented revenue in the East Khándesh Division is due to increased sales on the permit system. On the contrary, there has been a falling off in the receipts of the West Khándesh Division, as the Bhils have not come forward so readily to purchase. In the divisions of Násik, Ahmednagar, Poona, Sátára and Sholápur no extensive sales are made of standing timber. In the Surat Division the sales of the Dáng timber were held very late, and there was a combination among the small number of purchasers who attended the sales, consequently very low prices were offered and inconsiderable sales were effected. In the Panch Mahals Division prices ruled high at auction sales of standing teak sold upon occupied lands.

(2).—Firewood.

160. The following statement exhibits the quantity of firewood, in cubic feet, removed from the forests of the Northern Circle by purchasers, either by contract, or on permits issued for their removal in cart-loads, &c., on payment of fees at their own cost, with revenue realised, as compared with the results of the past year :—

No.	Division.	Firewood in Cubic feet.		Receipts.	
		1888-89.	1889-90.	1888-89.	1889-90.
				Rs.	Rs.
1	North Thána	951,162	1,468,966	8,636	7,855
2	South Thána	568,100	905,787	1,198	1,354
3	East Khándesh	1,264,275	1,165,930	7,221	8,400
4	West Khándesh	1,439,669	456,950	3,880	3,119
5	Násik	43,120	62,697	1,490	1,474
6	Ahmednagar	6,844	13,335	641	743
7	Poona	29,380	910	1,673	2,415
8	Sátára	14,663	12,185	414	395
9	Sholápur	1,949	1,280	52	127
10	Surat	29,223	17,087	1,524	296
11	Panch Mahals	224,574	117,304	932	949
	Total ...	4,572,959	4,222,431	27,661	27,127

161. The receipts from this source for the whole Circle compare favourably with those of the preceding year.

(3).—Bámbus.

162. Bámbus were removed by purchasers and consumers from the forests of all the divisions of the Northern Circle, except Sholápur, where there are no bámbus at all, either by contract or on permits issued, on payment of fees for their removal in cart-loads, head-loads, &c., and the following table exhibits a comparison of the results of the year under report and the preceding one :—

No.	Division.	1888-89.				1889-90.			
		Bámbus removed.			Amount realised.	Bámbus removed.			Amount realised.
		Cart-loads.	Head-loads.	Number.		Cart-loads.	Head-loads.	Number.	
					Rs.				Rs.
1	North Thána	5,306	...	319,059	11,893	7,816	...	196,717	7,294
2	South Thána	221	2,631	155,746	3,543	338	3,295	187,757	4,196
3	East Khándesh	...	1,040	256,800	3,719	...	...	255,175	3,638
4	West Khándesh	...	...	256,772	2,563	15	...	235,908	2,882
5	Násik	91	831	178,407	4,004	65	849	145,592	3,838
6	Ahmednagar	...	...	33,441	342	...	...	26,195	263
7	Poona	...	...	169,849	1,753	...	...	136,821	940
8	Sátára	...	362	11,117	282	...	500	2,826	241
9	Surat	17	1,088	538,002	12,237	...	2,421	446,807	8,901
10	Panch Mahals	...	...	162,123	2,026	...	...	54,183	703
	Total ...	5,635	5,952	2,081,316	42,362	8,234	7,065	1,687,981	32,896

163. The decrease and increase in outturn and receipts depend upon the demand for the article, and the diminished revenue for the circle is owing to slack demands in the divisions of North Thána, Poona, Surat and Panch Mahals.

(4).—Other Minor Produce.

164. The following statement exhibits the realizations from minor produce, such as apta and tembhurni leaves, tarwad and shembi bark, honey, wax, fruits, stones, earth, karvi, &c., removed from the forests of the several divisions of the Northern Circle, by consumers and purchasers, as compared with the results of the last year :—

No.	Division.	Amount, 1888-89.	Amount, 1889-90.	Remarks.
		Rs.	Rs.	
1	North Thána	4,101	4,953	
2	South Thána	2,375	3,137	
3	East Khándesh	542	901	
4	West Khándesh	9,300	* 12,459	* Includes Rs. 10,502 for Rosha grass stills.
5	Násik	1,399	† 4,525	† Includes Rs. 2,029 for Hirdas.
6	Ahmednagar	1,418	1,170	
7	Poona	2,913	1,994	
8	Sátára	4,044	3,063	
9	Sholápur	530	321	
10	Surat	6,337	1,038	
11	Panch Mahals	2,193	159	
	Total ...	35,152	33,720	

165. In the two Thána Divisions the increase is due to better prices obtained for the apta and tembhurni, palas and palm leaves. There was a large demand for stones and for Rosha oil manufacture in the East and West Khándesh Divisions. In the Násik Division hirdás collected on share system fetched excellent prices. In all other divisions of the Northern Circle, except Panch Mahals, the demand for minor products during the year was not so great as in the year before. In the Panch Mahals Division no revenue, which had been estimated at about Rs. 2,000, was derived from mhowra flowers, as under Government Resolution No. 2439, dated 28th March 1889, in the Revenue Department, the villagers in the Godhra, Kálol and Hálol Ranges were allowed to take mhowra free of charge.

III.—FREE GRANTS OF FOREST PRODUCE.

166. The following is a comparative statement of free grants of timber, which have been made from forest reservations during the past three years, in the several divisions of the Northern Circle:—

No.	Division.	1887-88.	1888-89.	1889-90.
1	North Thána	44	340	73
2	South Thána	1,464	1,166	168
3	East Khándesh	16	.....	.....
4	West Khándesh	651	159	45
5	Násik...	521	368	267
6	Ahmednagar	34	4	297
7	Poona	93	817	539
8	Sátára	190	85	354
9	Sholápur	.....	.....	.....
10	Surat...	36	194	.....
11	Panch Mahals	998	307	193
	Total ...	4,049	3,440	1,936

IV.—PRODUCE REMOVED BY RIGHTHOLDERS AND UNDER PRIVILEGES.

167. No rights, save of way and water access, have been found by the Forest Settlement Officers to exist in respect of any of the forests of the Northern Circle, which have come under their judicial investigations and proceedings, and consequently rightholders have no *locus standi* in the forests. The value of the forest produce removed under privileges is very considerable, indeed, particularly in those forests where a few kinds of trees are reserved and

the remaining trees are given to the people to cut and take, as the exercise of privileges is not restricted to fixed times, is not limited in most cases to defined quantity, is not subjected to control such as would result from the introduction of a permit system, it is not possible to arrive at any correct knowledge of the value of the exploitations of timber, firewood, bámbus, ráb material, grass, fruits, flowers, &c., &c., &c., brought out of the forests free of charge by forest villagers, wild tribes and others, for domestic use, or for barter, or sale. The free pasturage enjoyed by cattle of forest villagers inside reserved forests, alone, represents a considerable income. As the entry of hypothetical figures in an administration report is objectionable, it would not be correct to enter an estimate, which might require six or seven figures to represent it, and it is needless to say that privileges, unregulated by conditions which forestry demands, are a direct consuming attack upon the capital value of the forests, and that the value of the damages done to the productive powers of the forests, added to the unrealised value of the produce removed or enjoyed free of charge, if worked out, would give a startling result.

V.—IMPORTS AND EXPORTS OF FOREST PRODUCE.

168. The following statement shows the imports and exports in the North Thána Division, as compared with the results of the past year :—

Range.	Imports.				Exports.					
	1888-89.		1889-90.		1888-89.			1889-90.		
	Timber Poles.	Firewood.	Timber Poles.	Firewood.	Timber Poles.	Firewood.	Bámbus.	Timber Poles.	Firewood.	Bámbus.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	No.	C. ft.	C. ft.	No.
Sálsette	8,220	31,807	...	...	3,111	5,675	...	...	8,925	...
Bassein	...	...	...	...	...	253,975	6,326	57,574	339,463	...
Máhím	...	...	...	...	210,102	436,612	66,777	156,981	425,063	...
Dáhánu	...	...	...	...	330,843	155,762	169,019	702,915	359,737	407,559
Umbargaon	...	5,375	...	9,437	34,131	95,139	...	...	9,225	...
Váda	...	...	...	...	129,822	22,437	...	36,207	45,412	...
Total ...	8,220	37,182	...	9,437	708,009	969,600	242,122	953,677	1,187,825	407,559

169. The import trade of timber and other produce in the eastern portion of Khándesh was not great during a part of the year, owing to the forests in foreign territory bordering upon the frontiers of the division having been closed against teak and tiwas exploitation, and consequently the amount of duty collected upon foreign timber is only Rs. 12,386 as against Rs. 13,551 of the preceding year.

170. In the western portion of Khándesh, although the import trade is large, still it declined considerably owing to prohibitions enforced upon the removal of certain species of timber, and to enhanced fees levied upon other kinds in the adjoining forests of the Barwani, Mowas, Gaikwari and Indore states, and therefore, the duty collected amounted to Rs. 15,051 only, while Rs. 18,307 were realised the year before.

CHAPTER V.

FINANCIAL RESULTS.

171. Last year's financial results were the highest on record, but those of this year have considerably surpassed these figures also, and have thus more than maintained the financial prosperity of the Circle, as will be seen from the following comparative statement :—